

# Developing Islamic Economic Production

M. Subandi (mhdsbandi@yahoo.co.id)

## Abstract

There are rules, manner, behaviours or arrangements in Islam in respects to production. Some muslims and Islamic economic agents have been practicing the rules and the regulations.

Lack of primary needs production as food has threatened the stability of the life in this world, especially in the underdeveloped and the developing countries in which most muslims live. Shortages of foods may cause unstable life.

Muslim and Islamic economist and leaders have to take economic (production) problems into serious consideration if they don't want to be the victim of world non-muslim economic domination.

Muslim must not be consumer or just be a sale agent of the products of others, but must select and develop appropriate technology suitable with their human and natural potentials. Agricultural Industry is suitable for Indonesia and for some other muslim contries.. Our Prophet encouraged us to generate the production by cultivating the idle land (*ihya al-mawat*) to yield crops for foods.

Key words : economic, food, primary, shortage,

## A. Natural Sources for Economic Bases

We conclude that Islam is not simply a religious faith, but it is also a political, social and economic system for Islam society. That is what is intended by the phrases that describe Islam as a religion and a code of life and as a faith and sharia. Islam taught was not revealed to man for spiritual guidance only, as was other religion which advocates the principle secularism. Instead, Islam comes in order to organize man's life in all its aspects.

Aspects relating to sustaining and maintaining the existence of life of organism or living creatures are the metabolism. Biologist says one of the characteristic of life is metabolism. Organisms require energy for maintaining their life. The autotrophy is self-producing energy organism, organism classified as the vegetations. They produce energy through photosynthesis (the natural process of forming glucose or starch out of CO<sub>2</sub> or carbon dioxide and H<sub>2</sub>O or water inside the chlorophyll in the present of the sun light).<sup>1</sup> And the heterotrophy is organism which maintain its life with depending on feeding on other organic organism, they are three groups; the herbivore, the carnivore, and the omnivore. Human belongs to omnivore.

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<sup>1</sup> Actually, the formation of fire as stated in the verse or energy (Sayed Quthb and Quresh Shihab) is clearer since the finding of the formulation in photosynthetic process. The equation is as follow  $6\text{CO}_2 + 12\text{H}_2\text{O} \longrightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$

The extraordinary energy derived from chlorophyll or green tree is the result of a extremely complex process involving of many coordinated biochemical reactions. Shortly, photosynthesis is the process of synthesis of sugar (glucose) from carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O) in the presence of sunlight taking place in chlorophyll and gives out the waste product oxygen (O<sub>2</sub>). The chlorophyll (the green tree) as the dominant factor plays a role as the captive in the so called light dependent reaction. The pigment chlorophyll absorbs light, while in the light independent or dark reaction CO<sub>2</sub> is captured from the atmosphere and in a complex process releases 3-carbon sugar which are later combined to form glucose C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>. Simply, photosynthesis may be defined as the conversion of light energy into chemicals by living organism (*syajarul akhdhar*/green plant). *Syajaru al-akhdlar* in green organism as stated in the verse may be considered as the first producer (from nature: water and carbon dioxide) supplying food (energy) for animal feeding on vegetation (herbivores), in turn the herbivore animal will become the supplying food for animal (predator) feed on meat (carnivore). The cycle goes on that the living in the earth keeps in balance. The same thing happens in the equilibrium of gas components in the atmosphere. (Subandi, M. Revelation Guide on Science. 2008. pp 21-2)

We consume vegetation for carbohydrate, fat and some protein and minerals, and consume meat or flesh for protein and fat. Human cannot survive without the input of organic food. So, human have to produce the food to end needs.

Food Production may through the process of cultivating land in agricultural activities, keeping live-stocks (cattle, sheep, goat, chicken, etc), keeping or capturing fish. These activities are primary production process. Human may do this activities on the land provided by the Almighty God. Allah SWT prepared the earth from the beginning ( very hot and uncultivable globe) to the cultivable land as describe in the Qur'an verse 25 of the chapter al-Abasa.

Following the splitting of the heaven and the earth (the big bang) as is described in the verse 30 chapter Al-Anbiya.<sup>2</sup>

We pour forth water in abundance”<sup>3</sup>

It is interpreted that the process of heat decreasing was accelerated process. The poured water meant in the verse 25 of al-Abasa was not water of rainfall or precipitation as we know fall from the sky. When Allah SWT show the function of rainfall, it is mostly decribed with the verb *anzala* = send down as in chapter al-Mu'minun verse 18.

In the formation of the earth water was poured and was not sent down. It means that Allah would cool the earth down. Sayyid Quthub's interpretation on this pouring water that the water was at first resisted by high degree of heat on the atmosphere. No water could approach the surface of the earth. Molecule of water (H<sub>2</sub>O) was broken down by high temperature of the atmosphere into free elements of hydrogen and oxygen. Boiling point of water is just 100 ° Centigrade, while the temperature of the earth must be much higher (12.000°C) owing to the newly splitting substance producing great energy (exogen reaction) <sup>4</sup>

Due to the water was poured, and the earth's surface released and lost it heat, finally the water reached the surface of the earth and resides somewhere on the surface in the ground as liquid and on the atmosphere as gas. So, by mean of water the hot earth was cooled.

After the earth has been cool water placed in the basins as lakes, rivers an oceans. Water flowing over and beneath the earth is a key component of the cycling biogeochemical. Rainfall splashes over the outermost of earth crust, will gradually break the soil particles causing sheet erosion. Runoff erodes the surface forming rill erosion, and further deepens the rill to form gully as if the ground is clove. By means of water the crust of the earth has been split into fragments. This natural occurrence is in accordance with the verse 26 of Al-Abasa chapter

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<sup>2</sup> A more stronger evidence was found in 1964, the cosmic microwave radiation indicated that this universe has naturally cooled from an extremely hot and dense initial state a long time ago. In short, this model explains that universe expands from an extremely dense and hot state and continues to expand today. This happening can be described as a good analogy that space itself is expanding carrying galaxies like raisins in a rising loaf of bread.

The universe continued to grow in size and fall in temperature, hence typical energy of each particle was decreasing. This model of thought is in agreement with that of Allah revelation in chapter al-Ambiya verse “Do not the Unbelievers see that the heavens and the earth were joined together (as one unit of creation), before we clove them asunder? We made from water every living thing. Will they not then believe?”<sup>2</sup> As a matter of fact in chemical reactions, when a thing is splitting or cloving spark or energy is produced or needed.. The verse above says that firstly, the heaven and the earth were one thing or were closed up. A great energy was sparked when it happened to be clove asunder. (Subandi, M. Revelation Guide on Science. 2008. pp 46-7)

<sup>3</sup> Muhammad Taqi-ud-Din Al-Hilali and Muhammad Muhsin Khan (1404 H). The Noble Qur'an.

<sup>4</sup> Sayyid Quthub menukil pendapat sementara ilmuwan yang menyatakan bahwa suhu bola dunia ketika itu adalah sekitar 12.000 derajat. Ketika itu semua unsure bebas karena tidak dimungkinkan adanya perpaduan kimiawi yang berarti. Nanti setelah suhu bola dunia dan bagian bagian yang membentuknya dingin secara bertahap, maka terjadilah pembentukan dan perpaduan. (Sayyid Quthub dalam M.Quraish Shihab. Tafsir Al-Mishbah Jilid 15 p.71)

”And We split the earth in fragments. And cause the grain to grow therein”

Water is the initial agent in earth evolution. Allah proceeded the formation of the crust of the earth by splitting it. Chemically, water is a good solvent and physically was the only material in contact with the earth. Fragmentation of the crack earth into smaller particles by water. Water as physical entity erodes the crust of the earth through erosion, and as chemical substance decomposes the earth through the decomposition process. The crust of earth is broken down into soil particles smaller and smaller in size leading to form soil texture. Soil texture refers to the amount of sand, silt and clay in a soil sample. The distribution of particle size determines the soil texture.<sup>5</sup>

A good soil texture is a balance composition of soil fractions enabling the growth and development of plant roots. Then, after the earth is formed suitable for cultivation, Allah grows seeds therein. Allah prepares the earth for His creatures in perfect condition, plant and vegetation are grown. In the agricultural or biological view point, vegetation is the first chain of life cycle. Vegetation supplies food for human and herbivorous animal, and herbivorous animal will supply meat for human or be the prey of carnivorous animal. However, this life cycle is depends on water. All of these living organisms will not survive in the extinct of water. Water makes all living organisms survive their life.

## **B. Economics**

Farmer produces agricultural food, and this production is ready to be distributed to all people needed in anywhere. Non-farmer will need this food, then occurs the distribution or marketing utilities. Economic utilities involve the commercial activities covering the production activity and marketing activity. To master these economic business muslim have to learn economics. There were several events worth noting in relation to the teaching of Islamic economics. As a wealth country supported with the petroleum export, Kingdom of Saudi Arabia acted as pioneer in establishing economics education as informed<sup>6</sup>. And The first leading university holding the teaching of Islamic Economics is Al-Azhar University<sup>7</sup>.

In the post second world war, it is noted that is coincided with cold war era between the so called East block alien led by the former Soviet Union (USSR) and the West block led by the USA, the third world countries in Asia, Africa and Latin America belong with almost all of the muslim countries are trying to develop their economic aspects.

The adoption of Islamic Economy as academic subject matter in university is quite late when it is compared to the existence of Islamic economy as the way of

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<sup>5</sup> Fraction of soil texture are sand (particle size 2 mm-50 $\mu$ ), silt (particle size 50  $\mu$ -2  $\mu$ ) and clay (particle size <2  $\mu$ ) (Subandi, M. 2008. Revelation Guide on Science, p.49).

<sup>6</sup>It is noted that the first world conference on Islamic Economics which was convened by the Kingdom of Saudi Arabia organized by King Abdelaziz university in Holy Mecca on February 1976. That conference has led to the creation of the world Centre for Research on Islamic Economics. As for the first World Conference on Fiqh which was organized by Imam Mohamed Ibn Saoud University held in Ryad on November 1976 has led to the creation of a department of Islamic Economics in the Sharia Faculty. Later this department became a separate Faculty of Islamic Economics. (Teaching Islamic Economics. <http://www.ymsite.com/books/eepie/teaching.htm>. 2008 p.6)

<sup>7</sup> The first leading university in the area of teaching Islamic Economics as an academic subject is Al-Azhar University. The Islamic economics was delivered in two faculties in 1961. In the bachelor program which is in the Faculty of Commerce, students study economics containing in curriculum of the four levels, while student find the Islamic economics in the curriculum of legal politics in the graduate program. (Teaching Islamic Economics. <http://www.ymsite.com/books/eepie/teaching.htm>. 2008 p.1)

muslim life which is as old as the Islam itself. This is evidenced with the activities of our prophet, Muhammad PBH (peace be upon him) worked for his client (Khadijah) to deal goods to Syria. Our prophet had practiced a well business attitudes, he taught muslim how to deal well, just and accountable economic business.

Now there is a trend of growing interest of those having the courage to study how muslim have to do Islamic economy. It is pleasure to us of this development, and we do hope it will mark as a good commence. When an education institution is set the sharia economy it will attract interested students and will consequently generate the Islamic economy and in turn they will make efforts to seek for the solution of ending the poverty problem in the Islamic countries.

As the theory of the innovation of technology, technology may some times be based on scientific theory, and some times science is derived from technology. The establishment of economic agent as banks based on Islamic economics may occur in advance, then the theories are found and developed from the facts in practice as an empirical findings.<sup>8</sup>

There are growing interest of muslims to do their businesses and their daily economic activities back to the guidance of Islam, there are not only muslim chaired economic agents and banks which arrange Islamic background scheme of services to obtain the benefit of business. However, for us as muslim having no doubts in faith and soundness of belief applying Islamic Economic is an obligation.

Almost of our life activities involve with the economic aspects. The judgment by ijthihad made by the old time Islamic leader and theologists whatsoever are great importance, but these judgments were formulated in a period and in condition which are not ours and on the problems which are not ours, too. Today, we are called upon to make serious efforts as the old theologists did in the medieval age in order to reveal Islamic judgment on the new financial transactions and economic problems.

Economics may deal not only with the questions of riba and the prohibiting of banking interest and insurance companies, traditional banking transactions, but the whole economic aspects covering the production aspects. Economics must involve the dynamic production. There will be no market when there is no product, and there will be no transaction when there is no market. To produce a product there must be a production process. So that, in the economic system must include the production sub-system, and in the economics theories will be the production theories as a dynamic and a challenging subject matter to be studied.

### **C. Islamic Economic Production**

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8.. Berdasarkan konteksnya, maka relasi sains atau ilmu pengetahuan dan teknologi dikategorikan sebagai berikut :

- a. Ilmu pengetahuan dan teknologi memainkan perannya secara berbeda tidak saling bergantung, contohnya pada pengembangan mesin uap tidak melibatkan teori yang penting.
- b. Ilmu pengetahuan bergantung pada pengembangan teknologi, contoh berkembangnya ilmu mikrobiologi bergantung pada penemuan mikroskop.
- c. Teknologi bergantung pada ilmu pengetahuan, contoh rekayasa genetika, teknologi kultur jaringan baru berkembang setelah berkembangnya teori atau ilmu biomolekuler.
- d. Sains dan teknologi saling bergantung, contohnya teknologi penerbangan berkembang bersama-sama dengan teori-teori aero-dinamika. (Subandi, M. 2008. Sains dan Technology di Perguruan Tinggi Islam, p.10 )
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The word production means process of producing, and to produce in this relation is defined as to manufacture, to construct, to make, to grow or “to create”. In this world something done by people is just assembling of the existing components or changing its form or its chemical elements or compounds. To create (*khalaqa*) something new is the will or the deed of the Almighty God, what man does is just (*ja'ala*) to make or to change or to assemble. Even, not all *ja'ala* can be conducted by man, man can not make blood out of food nutrition, and cannot convert the sperm into clot-bone-flesh in the processes of human embryo. That is why, man finds science or technology and does not create them. Muslims are encouraged to produce and prohibited to destruct.

Islamic economy set the self interest and social interest as the important objectives. Every body is encouraged to activate its potential of productive work, and it is religious compulsory. So, the access to employment is every body's right, and its product is appreciated and preserved. Every able body man has “no the right” to get the social allowances or charity alms, he has to do something for fulfilling his needs. Islam orders us to be rich. It is the essence of the order to spend out or to pay zakah or to give charity to the poor or the saying of Prophet Muhammad SAW

قَالَ الْيَدُ الْعُلْيَا خَيْرٌ مِنَ الْيَدِ السُّفْلَى

The productive inputs (factors of production) are the resources employed to produce goods and services. Factors of production are labour, land, capital, and entrepreneurship. Capitalistic economists mentioned the components of product which are measured as the component parts of price as:

1. Land or natural resources (water, air, soil, flora and fauna which are used in production of a products)
2. Labour is human effort which is used in production which includes technical and marketing expertise.
3. Capital: all goods which are used in production of other goods. These include machinery, tools and buildings. The classical economists employed the term capital in reference to money and also gold. Other factors of production developed by the experts are the management and technology, and material or raw material.<sup>9</sup>

Land as medium for growing plants and keep animal alive. Prophet Muhammad was successfully encouraged his companions to cultivate idle land (*ihya al-mawat*) to yield crops for foods. Labour as factor in production was detailed described by Ibn Khaldun and others Islamic scholars. Personal development and maintaining the personnel prosperity are already managed a long time ago.<sup>10</sup>

Normally, capital means investment in goods that can produce other goods. It can also refer to machines, roads, factories, schools, and the like in which human produces goods and services. Investment is important if the economy is to achieve economical as much as possible growth and profit in a certain period of time or in a cycle process of production. The capitalistic goal is so simply that is to achieve as much as possible profit, while Islamic producer will consider basis value in his action an transactions of economic production, there are three principle values:

- a. Proportional or *al-Tawazun* to be not stingy and not wasteful or extravagant;
- b. Justice (*al-Aadalah*) behave being right and fair; and

<sup>9</sup> [http://en.wikipedia.org/wiki/factor\\_of\\_production](http://en.wikipedia.org/wiki/factor_of_production), p. 2.

<sup>10</sup> Rustam Effendi, *Produksi dalam Islam*.2003. p.40. Pada masa khalifah Usman banyak sahabat yang berusaha pada sector pertanian terutama pembudidayaan tanah (*Ihyaul mawat*). Usman sendiri memiliki tanah yang luas dan mempekerjakan 1000 orang pekerja.

- c. Ownership(*al-Milkiyyah*) legally utility of possession.<sup>11</sup>

In order to ensure the individual and social interests, Islamic economic system lay a basic theories of the Islamic economic justice (*al-'Adalah al-Iqtishadiyah*), Social Assurance (*at-Takaful al-Ijtima'i*), and the efficiency of the economic resources utilities (*fa'aliyah al-tsarwah al-iqtishadiyah*).<sup>12</sup>

As a matter of facts, production process is an industrious activity producing certain goods. Kinds and characteristic of goods which are produced are considered based on the Islamic values, and the activities may not deteriorate the quality of environment such as air, water, space, sound, etc. called pollutions. To ensure this activity is conducted properly, Islam sets the principle of production as:

1. Never producing the *haram* product or forbidden from viewpoint of Islam, for example foods.<sup>13</sup>

In this respect Allah say in *surah* al-Baqarah verse 173.

“ He has forbidden you only the dead animals, and blood, and the flesh of swine, and that which is slaughtered as a sacrifice for other Allah(or has been slaughtered for idols, on which Allah’s Name has not been mentioned while slaughtering).But if one is forced by necessity without willful disobedience nor transgressing due limits, then there is no sin on him . Truly, Allah is Oft-Forgiving, Most Merciful.”

2. Never making destruction on the earth, and maintain the quality of ecology conducive for human and other creatures to survive.<sup>14</sup> Izin pendirian usaha harus dilengkapi dengan persetujuan tetangga ( masyarakat lingkungan) ada instalasi pengolahan limbah dan harus didahului dengan analisis dampak lingkungan.

#### D. Appropriate Industry

We can recognize that humans will undertake a number of actions to maintain their life. The actions may range from the buying of food, taking ownership of property, selling goods and services, investment and taking loans, cultivation of land (agriculture), harvesting of forest sources, extracting natural sources (mining), taking up employment or giving work, setting up a company, importing and exporting, introducing goods, etc.

All of the life activities can be categorized into two kinds of economic science and economic system. Economic science deals with the method of producing of

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<sup>11</sup> Wahab Afif and Kamil Husen (2000). Mengenal Sistem Ekonomi Islam.

<sup>12</sup> Rustam Effendi, Op.Cit, p.13

<sup>13</sup>. The unlawful or *haram* foods are:

a.Pork and its by-products. b. Alcohol. c. Meat of dead animals. d. Animals slaughtered in a name other than Allah SWT. e. Blood. f. Intoxicating drugs, and etc. Ahmad H. Sakr. Muslim Guide to Food Ingredients. 1993 pp22-23

<sup>14</sup> The objectives of an enterprise or a corporation or individual dealing with production are:

1.To fulfill the need of individual properly. 2. To meet the need of the family. 3.To provide the coming generation. 4. To sustain the resource for the offspring. 5. To prepare a supply for helping others. And Ibn Khaldun and other theologists categorized human needs into three degrees:

primary need (*dlaruriyah*), secondary need (*haajiah*) and Tertiary need (*tahsiniah*).

Some opinions of the theologists tend to decide that the fulfillment of the primary needs is an obligation essentially to be performed by each individual or the obligation of government. The government has the obligation to ensure the fulfillment of the primary needs for its people. (Sidiqi 2000. Kegiatan Ekonomi dalam Islam, p.15.)

goods and services, while the economic system deals with the manner of their distribution.<sup>15</sup>

Some opinions say that the production of goods and services follow no particular viewpoint in life. Capitalist, socialist or Islamic are the same. It is universal. Economics law say inflation occurs when there is too much money chasing to few goods does not change whether in economic community of Jew or Muslim the same way as the physics, the nature is no different to the fact of wood burns in Canada, in Australia or in Sumatra Island, the fire may burns the woods when there is light spot in the dried shrubs.

This means that on the production or manufacturing are the same irrespective location or belief of community. However, this opinion is debatable, we may opine that in the production stage, it will, of course, relate or involve with others parties. It means involving the system in which we have to consider the manner in producing that is that principle of Islam.

A simple example is in increasing egg production of a certain strains or race of layer chicken. A poultry breeder or farmer may formulate poultry feed containing nutrient promoting egg production which enable the chicken produce more eggs. Scientifically, factors influencing the chicken to lay eggs are the factors of nutrient containing in the feed and the efficiency of energy utilization or the metabolism within the chicken body. So, the input of feed is correlated with the energy used by the chicken for the activity or movement its body inside its narrow hall or the portstal. The smaller its cage (the less movement of the chicken body), the smaller energy is lost, that enable the energy within the chicken body to be accumulated for the formation of eggs. By that limitation of chicken body movement, the production of egg can be increased, but such the treatment to the chicken is not humanist. Such a technology is violating the essence of Islamic taught.

Another example of the application of Islamic law illustrating gaining more effective and more economical act but neglecting the norms is pest eradication with pesticide treatment. Spraying insecticide on a population of insect pest of a crop with a higher degree of the LD<sub>50</sub> (lethal dosage)<sup>16</sup> such as with chemical DDT or Endrin is considered unwise curative measure. In this case, doing some action in producing a product should be done efficiently and should not cause wider damage ecologically. DDT and Endrin are chemicals that are very high poisonous and persistent in nature causing residual effect dangerous to human and animal.

It is true that Prophet Muhammad SAW said “You are more capable of doing your daily activity relating to a specific vocation”, however in performing an activity the manner of the action have to be morally wise and honorable, and for muslim have to in tune with the essence of Islamic taught. Both in science or technology and in system of economy. Islamic taught have to be the principle on all considerations.

Beliefs or religions or ideologies interfere in system of economy. The way of distribution of resources, how goods and services should given to the public. The manner that define how to distribute the wealth, how to posses it and how to spend or

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<sup>15</sup> Islamic Economic Jurisprudence. 2008, p 1. Islamic economics is economics in accordance with Islamic law. Islamic economics can refer to the application of Islamic law to economic activity either where Islamic rule is in force or where it is not, i.e. it can refer to the creation of an Islamic economic system, or to simply following Islamic law in regards to spending, saving, investing. Giving, etc. where the state does not follow Islamic law. ([http://en.wikipedia.org/wiki/islamic\\_economic/2008](http://en.wikipedia.org/wiki/islamic_economic/2008))

<sup>16</sup>LD<sub>50</sub> is measurement of poisonous degree of pesticide, the lower point of LD<sub>50</sub> the more poisonous is the pesticide. LD<sub>50</sub> of DDT or Endrin are lower than the Basudin, LD<sub>50</sub> of Endrin is 5 means with 5 milligram of Endrin can kill 50% of pest population, while LD<sub>50</sub> of Basudin is 100, for kill 50% of pest are needed 100 milligram. (Subandi, M. 2008 . Revelation Guide on Science, p. 71)

dispose, how to give employment it. Islam has a principle and arrangement for the economic and the social lives. The writer shall not write detail in them, instead, would like to present a glance thought of an element of the economy prevailing especially in Indonesia, that is the problem of food.

Food is produced by farmer or those living on agriculture sector (agricultural industry). Food is one of the principle needs for people. In most of Asian and African people rice is the staple food. Developed or advanced or industrial countries are having no problem with food, but it becomes a great problem for developing or underdeveloped countries, many of them are in Asia and Africa continents and in central and south America. Riots and disorder in communities even often happen as the food is shortage. In Haiti, the Prime Minister was dismissed after food riot. The misery pictures and reports from Africa how people fight over the food, struggle or snatch away among their friends to get food distributed by United Nations officers.

Indonesia is vulnerable to a drop in rice production, and has a little rice reserve. The government has paid less and less attention to agriculture, hence agricultural production is not keeping pace with demand. Indonesia import many kinds of agricultural product to meet the domestic demand.

This analysis is justified with the banned rice export by the Government. The discourse of rice exporting was initiated by the traders who wanted to get much profit out of the export for their own beneficial. In the beginning first half of this year, the export of rice was almost supported by the Minister of Commerce. Fortunately, the minister of Agriculture did not support the idea and rejected the Commerce Minister's opinion. The price of rice in the international market is higher than in the domestic market. When they sell rice abroad, they will get much profit from the different price, but when Indonesian Government has to import rice, the government has to spend for subsidy price to keep the price as set as rice for the people in domestic market.

The intention of some Indonesian traders to deal rice export in the unstable rice harvest condition was somewhat irresponsible citizen, if we don't dare to blame them as the corrupt economic thinkers.

The rice traders or exporter who wanted to sell Indonesian rice abroad were the economic agent who don't have the responsible of national food security. They wanted to get much commercial margin without taking into consideration of the availability of food supply for their nation. They thought the tonnage of rice just in time of harvest and of several weeks afterwards. This consideration is contrary to the reasons in the head of an agriculturist. A farmer will think that the harvest is done only, at the soonest, every 4 months. A farmer may take decision to sell their food stock when there is reserve for more than the period of planting. We remember to the policy of Prophet Yusuf (as) in facing the coming drought seasons as describe in the surah Yusuf verse 47 :

Prophet Yusuf had taught us to stock food for the time of difficult, even prophet Yusuf suggested to eat the harvest only a little that more harvested crops can be put for reserves in the ear form in order to the grains withstand edible for longer period of time.

Yusuf said:" For seven consecutive years, you shall sow as usual and that (the harvest) which you reap you shall leave it in the ears, (all) except a little of it which you may eat" The prediction or the teaching of prophet Yusuf was visioner and modern technological viewpoint. In the principle of post-harvest technology, storing in the form of husked paddy will keep the quality longer than storing in the form unhusked rice (polish rice). Prophet Yusuf was famous as a Treasurer, and we have to take the example.



Indonesian food stock is so unsecured for feeding the people due to unproductive and inefficient agricultural practices.<sup>17</sup> Many problems in farm production supply make farmers difficult to increase their production<sup>18</sup>.

Low production of land may also be caused by less educative of the most farmers. In 1984 Indonesia achieve rice self-sufficient, it was the result of the then serious efforts of the government to develop agriculture sector. More agricultural extension workers were recruited to help farmer cultivated their land in measuring fertilizer needed, planning planting schedule, etc. The keen attention of government in agriculture was shifted to the unsuccessful high technological industry. The shifting attention to the industry sector made narrowing arable area. Those factors make Indonesia find it is difficult to increase its food stock. The food reserve for secured supply is stock for 90 to 100 days consumption. This duration is the same with a season of paddy cultivation. Now, Indonesia has rice stock of 350.000 tons, while the safe stock should be 1 million tons. The enough supply of food owned by the government ensures the stability of nations. However the supply should be accessible to the whole people.<sup>19</sup>

The links of the food resilience is illustrated below (Fatah Nugraha, 2008)

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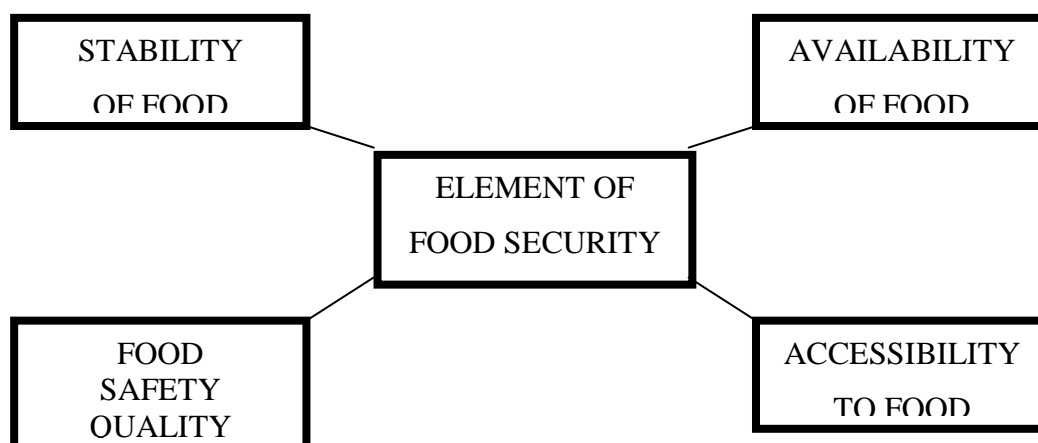
<sup>17</sup> Ibid. P 76. There are factors influencing the availability of Indonesian food supply:

1. Low productivity of land
2. Narrowing arable area for rice field due to land conversion to housing or industrial plant.
3. Failure of harvest due to lack of water supply, pests or flood.
4. Unstable supply of farm production means as fertilizer (in time of growing, fertilizer disappear from the market, shortage or deed of speculators)

<sup>18</sup> Drought and flood are the impact of unwise land use and the over exploitation of woods and forest. Unplanned of deforestation cause run off and accelerated erosion in the upland area and flood in lowland area. In the dry season, no stream of water flow from the former rainfall catchment areas. Farmers are always complaining about the disappear and the difficulty to buy fertilizer in time of they need it. Indeed the fertilizer factories are also complaining about the lack of gas supply from Pertamina (the National Petroleum and Gas Corporation). Gas is supplying material to nitrogen fertilizer) there is Constitution regulating the gas sales and utilization, stating Indonesian gas has been bound to foreign contract. 80 % export or sold to foreign country meet the contract and 20% for domestic utility. The contract was signed for certain period of time and it is not an easy problem to cancel or change the contract. (Winarno Tohir (2008) Membangkitkan Energi Kolektif Petani dalam Menanggulangi Kerentanan Pangan, p. 3)

<sup>19</sup> Ibid., p.2 Analyzing the rice (food) problem in Indonesia, and it predicted there will be a shortage of rice in this year. This analysis; the area of arable land for food crop (rice ) cultivation per-capita is 531 m<sup>2</sup> with the productivity per hectare 4.6 ton of husked rice (unmilled). So, the yield per-capita per annum is 228 kg. The rendement<sup>19</sup> of husked rice to unhusked (milled) rice is 63,5 % gaining 148 kg of milled rice per-capita. This figure of production is compared to the consumption per capita per annum of 139,15 kg resulting a rest of around 9 kg per-capita per year. Nine kilogram reserve is a very risky reserve. To get a reserve of 9 kg per person if the condition is normal, there is no failures of harvest due to pests or drought or flood, no natural disasters as earth quick, eruption of mount, or social riots causing damage of products and unpredictable addition distribution of food reserves, and damage to infrastructure and means of production in centers of food producing areas. But now, we hear, here and there drought threatens the producing areas. When the emergencies happen, the reserve will be used up within 24 days, as for to get the new yield of rice or replenish the reserves is needed 100 days to 110 days. Indonesia's food security would be in danger.

## LINKS OF FOOD RESILIENCE



. Though Indonesia is not net importer, the huge number of population makes significant importer. The increase of food price makes much burden for the food importing countries. The countries will be difficult to develop other sectors of development because their fund is used up for the import of food.<sup>20</sup>

Most countries in Asia and Africa face the same problem in food stock, unfortunately most of them are countries where muslim are predominantly population. Leading exporters are China, Thailand, Vietnam, The United States, India and Pakistan. The United States does not produce a lot of rice, but Americans do not much consume rice that the stock and export half of its output may give status among major exporting countries. Indonesia belongs to the importing countries with Brazil, Iraq, Bangladesh and the Arab world, and African countries are also major consumers countries

Even if the we get over the present crisis, future crisis are likely to be much more severe. Expensive food or severe food shortages will topple governments unrests will follow, and the life of religious may be shaken, the faith may lose as Prophet Muhammad saying:

رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ أَنَّهُ كَانَ يَقُولُ اللَّهُمَّ إِنِّي أَعُوذُ بِكَ مِنَ الْكُفْرِ  
وَالْفَقْرِ فَقَالَ رَجُلٌ وَيَعْدِلَانِ قَالَ نَعَمْ

The world crisis of food will in general impact the economic of many countries. The lack of food supply is as the result of dual standard of world political

<sup>20</sup> Food and Agriculture organization of United Nations (2008), reported the growing of food demand and rising prices of commodities. The food price increase is driven by some factors:

1. The tripling of oil prices.
2. The conversion of cultivable land to biofuel producing corn or cassava.
3. The negative impact of climatic changes.
4. The unfocus of many governments in world to produce grains.

The jump up of price is as the influence of crude oil price rise in the world market. The United States of America as the biggest corn exporting country is decreasing its supply and convert its corn to bioethanol resulting the price jump from 90 \$ up to 210 \$ per ton, in turn the price of soybean rose to 600 \$ per ton. Brazil the biggest sugar producer is increasing its biofuel from sugarcane causing the rise of sugar price. Crude palm oil as potential for biodiesel is also marked the rise its price. ([http://www.upiasia.online.com/economics/2008/04/22/rice shortage threaten asia](http://www.upiasia.online.com/economics/2008/04/22/rice%20shortage%20threaten%20asia), p.2)

policy of the United Nations. If all of these vegetatives are food for human. Why didn't he suggest to produce energy from nuclear sources. Nuclear for peaceful, and in this case for substituting the usage of food for fuel. Food is food, is only used to fulfill the basic human needs not for converting to biofuel.<sup>21</sup>

Economic turmoil might initiate from the losing attention of the leaders to the problem of food, forgetting the agricultural sector. Many countries including Indonesia fell into the trap of industrialization, dependent on foreign direct investment, and infrastructure renewal as the prerequisite the industry are funded with foreign loans in the last two decades causing much foreign debts. Ignoring the very basic necessity of life that is food grain production.

They, including Indonesia leaders, believe that with a mountain of cash at hand they could buy food anywhere. That thought turn out to be a mirage as food surpluses have disappeared all over the world, and there is nothing they can do with their reserve. The dents of people are waiting for some things to bite.

Such the problem of choice of development sectors have been adopted since the mid of 1980s. Since then, the development on Indonesian economy has concentrated on industry and let the agriculture sector take a back seat. In 1997, Indonesia harvested the false choice, economic turmoil has occurred, burden of foreign debt, lack of foreign currencies for importing spare parts and raw material for industries made industries almost totally jammed and collapse. The export of industrial product stopped, factories dismissed their managements and discharged or disemployed their labourers. Textile industries were unable to import raw material that is cotton fiber from the USA, and aircraft industry stop their assembling activities, and no dollar got from the industrial sector.

In such an emergency situation of economy, Indonesia still get the foreign currency from the export of traditional production of agriculture sub sectors of industrial plant such as tea, rubber, tobacco, palm oil, cocoa, spices as nutmeg and clove, etc. Indonesia is traditional and potential agricultural nation. Why should Indonesia looks the Arabian, and goes to the choice of traders. Arabian countries have a limited fertile land to induced high productivity in agriculture. Let us see the United States or France, they developed industries after they succeed in agricultural industry, and they don't cast aside agriculture to develop industry. They exporter of high-tech products and they export the agricultural products, too. Agricultural industry is the most suitable for Indonesia. It is supported with our natural potentials.

Muslims in the world have to criticize the current situation, to develop the economic theories and to properly choose the sector suitable for every country based on her basic economic potential. Jordanian is, of course, different from Indonesian. However, Bangladesh or South Thailand where there are muslim, may be developed the same pattern of economic potential with Indonesia. The current food crisis reflects not only financial events of recent years, but longer term policies of world imperialism. Instead of allowing for a planned improvement of infrastructure and farming techniques, globalization on a capitalist basis has resulted in a restriction in many parts of the world of farm production. This has been carried out in order to

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<sup>21</sup> Abdoil, A. 2008. Islamic Education In Iran. Speech on the International Seminar On Education in the Islamic Countries. Pesantren Darussalam . An Iranian diplomat said, that if Indonesia utilizes her uranium to build energy for some utilities as to generate electricity as the Iran does, the price of electricity for the household, industries and others will be just one fifth (1/5) of the current rate paid by Indonesian, and there is not loss of food material for people and feeding of livestock. ( Pesantren Darussalam, Ciamis. West Java. 8 Juni 2008, p. 4)

lessen competition and prevent market gluts from harming the profit interest of the major powers.

First of all the basic needs of life have to be fulfilled. The basic needs consisting of food, clothes and shelter (housing). Food and clothes are products of agriculture. People cannot postpone these needs. When we have managed these prerequisite requirements, we can proceed doing the next needs.<sup>22</sup>

As it was experienced by Indonesian textile manufacturing, the manufacturing was collapse when primary production was dependant to import. When we want to enhance the agricultural productivity, then we need education to improve of knowledge and skill of people working in agriculture field. They have to be improved their knowledge of manuring plants and to measure dosage, how much nitrogen, phosphorus and potash and other major elements of nutrients are needed. They have also to know better how (the skill) and when (schedule) they apply those fertilizers.

The important knowledge is the economics skill. They must count the cost of production, how much fund is needed for buying production means. How efficient they use tractor to plow their land, instead of dragged with buffalo or bull. Eventually, when they have no capital, they have to deal with capital agent (cooperative or banking). In short, they will unavoidably relate with financial business.<sup>23</sup>

Islamic economists should realize the agriculture is devastated by export surges from developed countries and the program of the international Monetary Fund (IMF), which dictates state policy in change of loans, as agriculture was converted away from regulated subsistence farming and toward free-market cash crops produced for export. Muslim countries with huge population are become open up as export destination of wealth countries product of farm.

We look in the season of hajj in the holy lands of Mecca and Medina, millions of muslims consume bananas of American produce and other fruits imported from non muslim countries. Why don't we organize and arrange muslim common market for our facility and benefit. In this consideration muslim will learn the economics and the system of economic of our own, Islamic economy.

The best thing is we have to handle and control of the chains of raw materials and also manufacturing and marketing as well. Most of muslim countries are related with the extractive raw material as mining primary product, fishery catching, harvesting forest and agriculture products. Certainly, if these economic potentials are managed by all of muslim through the Muslim Common Market scheme and other effective cooperation of economy, the wealth of muslim natural resources will effectively enhance the strength of ummah life. Insya Allah.

## **E. Conclusion**

Production economic as branch of economic has been established in both Islamic economic structure and in the capitalist or socialist economic structures.

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<sup>22</sup> Abdul Moneim M. Osman. 2008, p. 1. World Islamic Forum, stated concerning the shift from primary production toward manufacturing should be enriched with that the first stage production may not neglected as the foundation for the advancement process of development. We have to be able to produce from the first to the end product. (director UNESCO regional bureau for education in the Arab states).<http://www.pmo.gov.my>

<sup>23</sup> Dr. Hassan Ali Al-Ebraheem. 2008, p. 1 the Fourth World Islamic Forum. It is, the turn of leaders or government, to think the ways and arrangement of skill education or training and financial usages by the people. Education system should induce technical skills for education for life. Education is the basis for development to achieve a highly skillful task force in the economy. <http://www.pmo.gov.my>

Production may be the first activity to initiate the chain trades and economic transactions.

There are rules, manner, behaviours or arrangements in Islam in respects to production. Some muslims and Islamic economic agents have been practicing the rules and the regulations.

Lack of primary needs production as food has threatened the world, especially the underdeveloped and the developing countries in which most muslims live. Shortages of foods may cause unstable life.

Muslim and Islamic economist and leaders have to take economic (production) problems into serious consideration if they don't want to be the victim of world non-muslim economic domination.

Muslim must not be consumer or just be a sale agent of the products of others, but must select and develop appropriate technology suitable with their human and natural potentials. Agricultural Industry is suitable for Indonesia, it is supported with her natural potential. Our Prophet encouraged us to cultivate idle land (*ihya al-mawat*) to yield crops for foods.

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Notes for the Submission to Digilib of UIN SGD of Bandung.

The author wishes to tell some notes of the publication of this article in STD (Science Technology and Development Journal of PCST (Pakistan Council of Science and Technology) the content of the article was inspired by my previous article written and published : Sains dan Teknologi di Perguruan Tinggi Islam (Subandi, 2009) described about the new subject matter in PTI (Islamic University). And the achievement of muslim in the middle ages (Subandi, 2007) in the article Scholars in The Islamic Golden Ages in Revealing Scientific Information in the Qur'an. And then the teaching of biology in Tarbiyyah faculty (Subandi, 2005) which was clearly explained in the article of Pembelajaran Sains Biologi dan Bioteknologi dalam Spektrum Pendidikan yang Islami. In 2011 the author published an article entitled Notes on Islamic Natural Based and Agricultural Economy (Subandi, 2011). As a lecturer of Estate Crops Production the author wrote a text book entitle Budidaya Tanaman Perkebunan (Subandi, 2011b), this book describes cultivation of estate crops and the all aspects of agronomy. The crops produce commodities for export (kopi, karet, sawit , etc.l) . In the same period the author as English master wrote a book with the assistant creativity Mrs Hanny (Subandi and Humanisa, 2011). Articles about Islamic were published in journal of Pakistan and of Garut, explaining the teaching of the holy Qur'an (Subandi, 2012c), and of the education of Islamic scientific in muslim world (Subandi, 2012b). Hopefully this article is valuable for muslims any where. Thank you. Wassalamu.

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